

Bioenergy Council Meeting – Barriers to Commercialization Notes

February 9, 2012

Purpose: Explore ways to develop price competitiveness and how to ensure a secure market is developed for the biomass supply chain. Topics include supply chain logistics considerations and ways to overcome these problems. It could also investigate the regulatory issues surrounding increasing ethanol blends in the near term and as the nation attempts to increase its cellulosic fuel supply and demand.

Amanda highlights the main themes that came out of the discussion in yellow below.

Andrew Fiene:

- **BARRIER:** Market Volatility/Lack of economic and political continuity and certainty barriers (i.e., Land use and regulatory laws and return on investment)
 - It is a long term commitment to put in a feedstock. There is a 2 year budget. Is there a 2 year feedstock? 6 year senators.
 - From the business side, when Andrew's group did their 2009 SW WI study, they know there is feedstock out there...but he believes that you have to be able to do it on your own, without government support—don't look at government programs.
 - Bob Sather...talking about a forest program and trying to build something with locking in on a program whether the price was only guaranteed on a 2 year lock in price. This is very difficult to do...
 - **Possible Solutions to this barrier:**
 - long term contracts could take care of some of the volatility. Can lessen the volatility and lessen the risk;
 - Diversity of Market outlets
 - Ability to invest in facility should be independent of government support. Long term contracts would help breach that divide. Time risk issues – both too long and too short, volatility. ROI in 3-5 years is important.
 - EPA Tier 3 and CAFÉ stds, RFS2 support.
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Steve B????

- **BARRIER:** Lack of Feedstock Research/Education/Outreach/Public Perception/Customer Demand
 - In Wisconsin it seems that we have done very little research here on brom grass and other crops; warm season grasses that will outprice...there is no incentive to go out there and grow these grasses.
 - For example, Bill Johnson from Alliant would say we need feedstock with low alkaloids...we can't deal with corn stover with too many alkaloids,

how do we know which materials have low alkaloids w/o doing more research?

- Pam said that for 20 years we have been doing feedstock research for bioenergy here...that some more research is needed for sure, but that it is needed more on the market side and not on this side.
- Possible Solutions to this barrier:
 - I think we talk with Pam about what research has been done in more detail, and determine what “market” research needs to be done and why no other research needs to be done. Share the research that she knows has been done with Steve B who raised this issue...see if he was aware of this research, see if he thinks it addresses his concerns, or if more research needs to be done. Look to see what other research has been done that the group is unaware of, etc.
 - One year Senator Schultz dedicated all ADD funds towards energy. A senator should do that again and say that all ADD funds need to be dedicated towards energy feedstock research.
 - Upfront and early PR/get the environmental group on the biomass side and out and supporting the effort early.
- Identify the range of research already conducted and work to establish an education/outreach program/effort to get the word out. UW-Ex, others. Identify the users of this information. Uniform message. Sort by audience.
- More market research on biomass crop demand

Bob Sather

- BARRIER: Not helping those that do have the technology to move forward; local buy in (financing/investing) without playing favorites
 - Bob is talking about Municipal solid waste. We must help the people that do have the technology to move forward. Why do certain people have this technology that work and why isn't this technology moving forward? Is it technology? Marketing? Cost? Regulation?
 - Possible Solution to this barrier: Encouraging vertical integration to get critical mass to get any kind of a supply chain built. Work with these small systems to learn a whole lot; education and outreach;
 - Ties in to the above on education and outreach campaigns. Buy-in from producers and the public.
 - Feedstock differences, Reach out to Fulcrum to identify the barriers they have faced over the last several years and the ones they face moving toward the commercial scale plant.

Bob Sather

- BARRIER: Natural Gas Prices
 - With the price of natural gas low...moving this biomass into parts of the state that aren't served by natural gas.
 - Possible Solution to this barrier: Are the heating oil and propane oil areas of the state the only areas that make sense?

- Pay attention to the NG price and parity with other fuels. How could alt fuels fit in?? Since there are barriers to get into the NG market currently, what alt uses are there that make economic sense?

Andrew Fiene

- **BARRIER: NOMADIC SOCIETY?...**
 - Andy built his house 8 years ago and was going to put a wood burner in until the last minute when he decided it wouldn't be a strong selling point. Cost response. Where is that point where it makes sense to start cutting wood on the weekend...low hanging fruit is the corn stover of the non woody biomass how do you harvest just the top? BT corn yields are higher so have more residue to deal with (doesn't break down any faster).
 - **Possible Solution to this barrier:** Outagamie County got a grant from the EPA to do something with their lands other than CRP...buffer strips in the great lakes watershed. Farmers are saying that \$100/acre is not enough for CRP...environmentalists are not happy with CRP??? Says Andrew. A lot of people had hoped that BCAP was going to be something they could plant every year and get money every year...hearing rumors of BCAP/CRP hybrid. Bob...want to elaborate a bit more about the points you put in? (Not sure if this was the solution or if this was a way to make the monetary sense for people to start cutting wood/crops on the weekend and burning them themselves).
 - **ROI on a home solar system, is it a sale point for future home sale??** Valuing solar on your home. A tool exists for solar. Is it possible to do this for other renewables? Can we recommend a similar program is developed for other renewables (wood burners, wind mill, CNG/LNG vs. propane)
 - **Standardization of systems (wood boilers, solar panels), siting and regulation standardized to allow transport of a RE system over time/location. Could apply to business settings as well.**